

Consolidated Metco ECSI # 3295
9:00 AM – October 19, 2006

PURPOSE OF MEETING

- Discuss DEQ-Consolidated Metco Agreement, site investigation status, Joint Source Control Strategy and Source Control Evaluation Report
- Determine next steps and schedule

DISCUSSION ITEMS

1) Consolidated Metco's goals and expectations for the site

2) Current Project Status

- Letter Agreement
- Soil/Groundwater investigation

3) Joint Source Control Strategy

- Source Control Evaluation/Decision
- Stormwater Evaluation

4) Next Steps and Schedules

- New agreement?
- Timeline

12 March 2004

Ms. Alicia C. Voss
Project Manager
Oregon Department of Environmental Quality
Northwest Region
2020 SW 4th Avenue, Suite 400
Portland, Oregon 97201

Subject: Consolidated Metco, Inc. - Response to Strategy Recommendations
13940 North Rivergate Blvd., Portland, Oregon
DEQ/ECSI File No. 3295
K/J 036423.00



Dear Ms. Voss:

On behalf of Consolidated Metco, Inc. (ConMet), Kennedy/Jenks Consultants (Kennedy/Jenks) is submitting this response to the Oregon Department of Environmental Quality's (DEQ) Site Strategy Recommendation (SSR) letter dated 21 May 2003 regarding the ConMet Rivergate facility (Site) located at 13940 North Rivergate Blvd. in Portland, Oregon.

In February 2001, DEQ Site Assessment Section (SAS) conducted an area-wide investigation of businesses in the South Rivergate Industrial Park to identify potential upland sources of adverse environmental impacts to the Willamette River. The South Rivergate Industrial Park lies downstream of the Portland Harbor Superfund Site that was added to the National Priorities List in December 2000. Information regarding the findings of the South Rivergate Industrial Park Investigation is summarized in the DEQ Strategy Recommendation Memorandum dated 1 March 2001. As part of that investigation, DEQ reviewed environmental records of nine businesses located within the South Rivergate Industrial Park complex including:

- Oregon Steel Mills
- Columbia Grain, Inc.
- Alcatel Submarine Networks, Inc. / STC Submarine Systems, Inc.
- Port of Portland Bulk Terminal No. 5 / Kinder-Morgan / Hall-Buck Marine
- Union Oil Company of California – Rivergate Terminal
- Ash Grove Cement Company

- Fort James Corporation
- SPC Properties / White Cap / Steinfeld Products Company
- Consolidated Metco, Inc.

In May 2003, based on information presented in the 1 March 2001 DEQ Strategy Recommendation Memorandum for the South Rivergate Industrial Park, DEQ/SAS completed a file review of available information regarding the ConMet Rivergate facility. As presented in the DEQ SSR letter dated 21 May 2003, DEQ concluded that the ConMet facility presents several unresolved potential contaminant concerns, and that the site should be further evaluated for potential contributions to contaminated sediments present in the Lower Willamette River. This conclusion was based largely on data collected following the release of small quantities of reclaimed cutting fluid to the local storm sewer in May 2000 and February 2001, and DEQ's interpretation of historical aerial photographs of the Site. DEQ also concluded that further investigation is needed to determine the potential for environmental and human health threats being posed by onsite conditions at the ConMet facility.

In October 2003, representatives from ConMet, Kennedy/Jenks, and ConMet's legal counsel met with Ms. Alicia Voss and Mr. James Anderson from the DEQ Voluntary Cleanup Program to discuss the 21 May 2003 SSR and to outline a future course of action for the Site. Through the course of the meeting, it was explained that the focus of DEQ's inquiry is to conduct an assessment of potential impacts to the Willamette River associated with stormwater discharges from the ConMet facility.

Based on those discussions, it was agreed that ConMet would respond to information presented in the SSR submittal dated 21 May 2003 and submit a work plan, if appropriate, addressing any data gaps and items of concern outlined by DEQ in the SSR.

The following provides Kennedy/Jenks' response to statements and information presented in the 21 May 2003 SSR. Relevant statements from the SSR are provided in italicized print in the order they appear in the SSR, and are followed by Kennedy/Jenks' response.

Statement 1: Introduction (page 1, paragraph 1)

The Consolidated Metco – Rivergate Facility (ConMet) is a metals casting foundry and machine operation, which has operated at the above location since the initial development of this area in 1983 (See Figure 1A for Area Map). The ConMet company maintains several U.S. facilities, as well as one each in Canada and Mexico. Their products include structural plastics, metal casings, fuel/water separators, and a variety of components for the heavy-duty transportation industry.

Response:

As presented in ConMet's 10 April 2002 response to DEQ's Site Assessment Information Request, ConMet purchased the vacant property consisting of 19.5 acres from the Port of Portland in 1964 and began initial construction activities shortly thereafter. Operations and products at the ConMet Rivergate facility are limited to the manufacturing of custom aluminum castings.

Statement 2: Introduction (page 1, paragraph 3, sentence 2)

In assessing aerial photographs of the ConMet site taken between 1998 and 2000, some additional concerns have been raised by the presence of several of what appear to be drums or other storage vessels, some apparently uncovered, in an open area between the Foundry and the Maintenance and Gusset building (See Figures 2A-C).

Response:

The referenced items are not drums or other storage vessels, but rather steel heat treating baskets that are used in the curing of aluminum-casted products. DEQ staff took a photograph of these baskets during their October 2003 Site visit. A copy of the photograph is attached as Photograph No. 1.

The last bullet item in the Recommendation(s) section of the DEQ SSR also makes mention of "apparent staining and/or spilled material(s) depicted in Figures 2A-2C." The items referenced in DEQ's interpretation of the aerial photographs are blue tarps used to provide cover and protection to materials and equipment.

Statement 3: Analytical Results (page 4, paragraphs 1-2)

The March 1, 2001 DEQ area-wide investigation of South Rivergate Industrial Park examined analytical data from several sediment samples collected at the Port of Portland's Terminal 5 marine depot. This facility is located on the Willamette River, roughly 1.5 miles downstream from the stormwater outfall serving ConMet. These data were originally presented in a series of reports from 1997 to 2000, by Hart Crowser, regarding sediment characterization of various locations between river mile 1 and 4. The DEQ investigation of these data notes exceedances of Portland Harbor baseline sediment concentrations, and/or sediment screening values for the following contaminants: 4,4'DDD, 4,4'DDE, arsenic, cadmium, copper, mercury, nickel, zinc, Total Petroleum Hydrocarbons (TPHs), Total Polynuclear Aromatic Hydrocarbons (PAHs), and bis (2-ethylhexyl) phthalate. The report concludes that the degraded sediment quality of the area necessitates further investigation, and goes on to nominate the site [South Rivergate Industrial Park] for separate tracking in DEQ's ECSI database.

Sampling of sediments in the mid 1990's adjacent to the Oregon Steel Mill docks also identifies considerable metals contamination, yet a definitive source was not identified (see DEQ ECSI

File # 141). The Oregon Steel Mill samples were collected just downstream from the stormwater outfall serving ConMet. These conditions do not establish a direct link between the Willamette River sediment contamination noted above, and the ConMet facility; however, ConMet has been source of contamination, whereby petroleum hydrocarbons, and likely metals as well, migrated to the river via a stormwater pathway.

Response:

The amount of cutting fluid material involved in the May 2000 and February 2001 releases from the ConMet facility was small. It is unlikely that this small amount of material would have any impacts to Willamette River sediments, particularly 1.5 miles downstream from the ConMet stormwater outfall. Also, as stated previously, operations at the ConMet Rivergate facility are limited to the manufacturing of aluminum cast products. The material released consisted of reclaimed cutting fluid that had been processed (reclaimed) to remove any aluminum shavings or related particulate matter. Aside from the small quantities of reclaimed cutting fluid that were released in 2000 and 2001, there is no evidence to suggest that ConMet has contributed to the presence of 4,4'DDD, 4,4'DDE, arsenic, cadmium, copper, mercury, nickel, zinc, total petroleum hydrocarbons, polynuclear aromatic hydrocarbons, and bis (2-ethylhexyl) phthalate in sediment at the Port of Portland's Terminal 5.

Statement 4: Consolidated Metco, Inc., Spill Response Report, OERS No. 01-0241, March 9, 2001 (page 5, paragraph 1, sentence 7).

It was eventually determined that the material was migrating from a leaking pipe located approximately 8 feet below ground. The pipe was designed to carry the spent cutting fluid from the ConMet machine shop, to an adjacent building (approximately 70 feet away), for the purpose of reclaiming metal chips from the used cutting fluid. It is unclear what factors may have caused the effluent upwelling from 8 feet below ground to the top edge of the catch basin. It may have been that the fluid was being pumped under high pressure the size of the pipe breach was substantial, the size of the breach was smaller, but had been occurring for a long time, or some combination of these circumstances. This condition suggests that the entire soil profile between 0 and 8 feet bgs was saturated with the cutting fluid effluent at the time of the release detection.

Response:

There is no evidence to support the statement that the soil profile between ground surface and 8 feet below ground surface (bgs) was saturated with released cutting fluid. It was determined through the course of the subsequent investigation, and as outlined in the 9 March 2001 Spill/Release Report submitted to DEQ by ConMet, that the source of the release originated from a small split in a connection where galvanized piping connects to the polyvinyl chloride (PVC) pipe that runs between the reclamation building and machine shop (Photograph No. 2). The galvanized - PVC pipe connection was located immediately south and outside of the

reclamation building at a depth of approximately 2 feet bgs, not 8 feet bgs as noted in the DEQ SSR submittal. The release appears to have traveled from the galvanized - PVC pipe connection through the gravel subgrade underlying the asphalt pavement and into the adjacent stormwater catch basin through a crack in the frame of the catch basin. The locations of the leak and the stormwater catch basin are shown in Photograph No. 3.

As referenced in the 10 May 2001 Environmental Sampling Report prepared by Kennedy/Jenks, several shallow hand-dug explorations were completed by ConMet in the vicinity of the cutting fluid pipeline to a depth of approximately 1.5 feet bgs. Cutting fluid and water were observed flowing into some of the hand-dug boreholes from the gravel subgrade immediately underlying the asphalt pavement. This "perched" cutting fluid/water appeared to be laterally discontinuous as it was not in all of the hand-dug explorations completed in the vicinity of the pipeline. Based on field observations and the results of analytical testing, the apparent extent of the reclaimed cutting fluid release is shown on the attached Figure 1.

Statement 5: Kennedy/Jenks Consultants, Environmental Sampling Report, May 2, 2001 (page 5, paragraph 1, sentence 4).

Based on the reported dimensions of the groundwater contaminant plume in the area of the effluent pipe leak, it is likely that the contaminated groundwater reached the fill material surrounding the stormwater pipes. This fill material is typically a porous gravelly substrate, and it may have served as a preferential pathway for groundwater contaminants migrating away from ConMet, and ultimately discharging to the Willamette River through seeps around the stormwater outfall. It is also possible that leaks between various sections of the stormwater piping allowed for the infiltration of the cutting fluid effluent into the gravel piping bedding.

Response:

There is evidence that the reclaimed cutting fluid did infiltrate fill materials immediately surrounding the cutting fluid recirculation pipes and the gravel subgrade in the immediate vicinity of the release location. However, the majority of impacted pipeline fill material (15.46 tons) was excavated by ConMet's contractor and transported offsite for disposal. The small volume of impacted subgrade material did not warrant removal, particularly considering its removal would have required tear out and replacement of the asphalt pavement cap in the release-impacted area (see Figure 1).

While utility conduits and their surrounding coarse-grain fill materials can act as preferential pathways for contaminant migration, it is unlikely, given the limited volume of the release (see ConMet Spill Release Reports), that the reclaimed cutting fluid would travel along the utility conduit and discharge to the Willamette River through seeps around the outfall, a distance of approximately 2,600 feet.

Furthermore, based on the fact that the reclaimed cutting fluid mixture, which resembles a white milky substance, is readily visible even at a diluted concentration of 7.5%, and that there was no evidence of the material at the stormwater outfall or in the Willamette River several days

following the release, there is no evidence to suggest that the material reached the Willamette River or the stormwater outfall via fill materials surrounding the stormwater pipe.

Statement 6: Data Summary (page 6, paragraph 2, sentence 6).

The concentrations identified indicate that free product in the diesel/heavy oil range was present at the time of sampling (solubility of diesel & oil ~3 ppm); however, emulsifying agents are likely present in the Trimsol product. The performance of emulsifying agents can be altered by changes in conditions such as pH, dissolved salts, dilution, and temperature. These conditions could not be readily controlled once the material was released, therefore the solubility of the cutting fluid effluent would likely have been altered. Additionally, the identification of higher concentrations of hydrocarbons present in groundwater than in soils, suggests that the release did not occur in the soils which were tested, but at another location.

Response:

Trimsol is not a diesel or heavy oil petroleum product but rather a lightweight cutting fluid as indicated in the laboratory notes regarding the analyses of soil and liquid samples collected from borehole S-1. Borehole S-1 was advanced to a depth of 1.5 feet bgs in the immediate vicinity of the release. The liquid sample obtained from this borehole contained almost pure reclaimed cutting fluid that was perched within the subgrade fill materials underlying the surrounding asphalt. The soil sample (S-1-1) was collected from a depth of approximately 1 foot bgs, immediately beneath the subgrade fill materials. The reason that higher concentrations were detected in the liquid sample (sample S-1) is because the sample contained almost pure reclaimed cutting fluid, whereas soil sample S-1-1 contained a mixture of soil/fill materials and reclaimed cutting fluid.

Although analysis of these samples by Northwest Method NWTPH-Dx detected concentrations of diesel- and heavy oil-range petroleum hydrocarbons, the results should not be interpreted to indicate that the Trimsol product or reclaimed cutting fluid materials contain actual diesel and/or heavy oil. Rather, the analysis indicates that the samples contain hydrocarbon constituents that elute within similar ranges as diesel and heavy oil petroleum products for which the Northwest Method NWTPH-Dx laboratory methodology and data interpretation were designed. This is noted in the laboratory analytical reports that indicate analysis of several of the samples produced chromatographs resembling light weight oil, or that the detected hydrocarbons do not have a pattern and range consistent with typical petroleum products.

Statement 7: Data Summary (page 7, paragraph 4, sentence 4).

In their May 2nd, 2001 report, Kennedy/Jenks states that on March 26, 2001, 15.5 tons of contaminated soils were transported to the Hillsboro Landfill for disposal; however, no receipt or invoice documenting such disposal was provided. Proper disposal documentation is also lacking from ConMet's April 10, 2002 response to DEQ's Site Assessment Information Request letter. Therefore, the final status of stockpiled, contaminated soils remains unclear.

Response:

A copy of the invoice from Waste Management for the disposal of 15.45 tons of contaminated soil at the Hillsboro Landfill facility is attached.

Statement 8: Recommendation(s) Bullet #1

Data associated with the February 2001 release show elevated levels of diesel fuel and heavy oil range hydrocarbons, as well as benzo(a)pyrene (a probable human carcinogen), which are significantly above applicable comparison values. There have been no data provided indicating that these contaminants were removed, or otherwise reduced to acceptable levels, from local soils and groundwater.

Response:

In the SSR, concentrations of detected PAH constituents were compared to the U.S. Environmental Protection Agency (EPA) Region IX preliminary remediation goals (PRGs). In September 2003, DEQ adopted revised risk-based concentrations (RBCs) and related guidance for evaluating sites impacted by petroleum hydrocarbons and other contaminant constituents from underground storage tank (UST) systems and other sources. Kennedy/Jenks proposes that these revised risk-based standards be referenced in evaluating potential subsurface impacts at the Site.

PAH constituents were not detected in the reclaimed cutting fluid sample and soil sample obtained from shallow borehole S-1 that was dug in the immediate vicinity of the release. Therefore, PAHs do not appear to be associated with the reclaimed cutting fluid. However, PAH constituents were detected in soil samples collected from boreholes B-8 and B-9 located outside the impacted area depicted in Figure 1. Benzo(a)pyrene is the only PAH constituent detected at a concentration above its RBC of 0.27 milligram per kilogram (mg/kg), assuming an occupational receptor scenario for soil ingestion, dermal contact, and inhalation. However, the locations of boreholes B-8 and B-9 are paved with an asphalt cap, thereby making this an incomplete exposure pathway. Given that the majority of the Site is covered with asphalt and is used exclusively for industrial purposes, it is more appropriate to examine subsurface soil impacts and potential future exposure scenarios assuming an excavation worker receptor scenario. All PAH constituents detected in the analyzed soil samples are below their RBCs for the excavation worker receptor scenario.

Diesel- and/or heavy oil-range petroleum hydrocarbons were detected in the groundwater samples collected from boreholes B-1, B-2, B-6, B-7, and B-8 at concentrations that exceed the RBC for the ingestion, and inhalation of tap water exposure pathway assuming an occupational receptor scenario. However, groundwater is not used at the Site for any purpose; all water services are provided by the City of Portland. Therefore, the ingestion and inhalation of groundwater is an incomplete exposure pathway. RBCs for other exposure pathways for diesel- and heavy oil-range petroleum hydrocarbons have not been established by DEQ.

PAH constituents in groundwater samples were either not detected at concentrations above their laboratory method reporting limits (MRLs) or were detected at concentrations below their RBCs assuming ingestion and inhalation of tap water under an occupational receptor scenario.

Statement 9: Recommendation(s) Bullet #2

Although the released material, from both the May 2000 and February 2001 incidents, was acknowledged to be spent cutting fluid, on its way to be processed for recovery of metal shavings, no analysis of metal contaminants has been performed.

Response:

As mentioned previously, operations at the Site are limited to the manufacturing of custom aluminum castings. Aluminum ingots, which are 80 to 99.999% aluminum by weight, are used as the raw material. The cutting fluid is used as a buffer during the final cutting and shaping of the aluminum cast parts. Aluminum shavings are removed from the cutting fluid during the reclamation process and recycled. The fluid that was released was reclaimed cutting fluid.

Statement 10: Recommendation(s) Bullet #3

The disposal of approximately 15.5 tons of excavated, contaminated soil, was reportedly completed by ConMet on March 26, 2001, yet no documentation of such disposal has been provided.

Response:

A copy of the invoice from Waste Management for the disposal of 15.45 tons of contaminated soil at the Hillsboro Landfill facility is attached.

Statement 11: Recommendation(s) Bullet #4

At least 4 hydraulic-push borings were completed within the estimated contaminant plume boundary resulting from the February 2001 release, yet no soil samples, and only one groundwater sample, taken from these 4 borings, were submitted for PAH analysis. Elevated diesel-range hydrocarbons in soil boring B-2 (1,540 mg/kg) are more than three times greater than the Level II diesel Soil Cleanup Standard (500 mg/kg).

Response:

The DEQ Soil Matrix Cleanup Standards were intended to be used at UST sites impacted by petroleum hydrocarbons and/or related constituents. It is our opinion that the revised RBCs are more appropriate for evaluating risks with regard to possible subsurface impacts at the Site. Assuming an occupational receptor scenario for soil ingestion, dermal contact, and inhalation,

the concentration of diesel-range petroleum hydrocarbons detected in sample B-2 (1,540 mg/kg) is well below the RBC of 70,000 mg/kg for diesel-range hydrocarbon-impacted soils.

Slow recharge associated with perched water encountered in the boreholes, limited the sample volume, which also precluded the type and number of analyses that could be performed. Boreholes B-2, B-6, and B-8 were the only sampling locations where sufficient sample volume was obtained to run both Northwest Method NWTPH-Dx and PAH analyses.

Statement 12: Recommendation(s) Bullet #5

Elevated concentrations of the PAH, benzo(a)pyrene are observed in soils with a diesel range hydrocarbon level of 71.8 mg/kg (boring B-8, 3 feet). A soil sample collected from boring B-2 at a depth of 1.5 feet exhibited a diesel-range hydrocarbon concentration of 1,540 mg/kg, yet no PAH analysis was performed on this sample.

Response:

Based on a review of the results of the laboratory analyses (specifically soil sample S-1), it is our opinion that the PAH constituents that were detected in the soil and groundwater samples that were submitted for PAH analyses are not related to the cutting fluid release. The source of the PAHs is not known, but may be related to fill materials that were used during grading of the Site and surrounding area in the early 1960s. The known processes and materials used at the Site are not expected to be a source of PAHs to the environment.

Statement 13: Recommendation(s) Bullet #6

With regard to the sample collected from boring B-8, laboratory detection limits for several PAHs are substantially above the appropriate comparison values; however, boring B-8 is located approximately 50 feet west of the estimated contaminant plume boundary. This condition suggests that the plume boundary was not estimated accurately, or that another source of PAH contamination is present in the area.

Response:

The noted MRLs of between 0.1 and 0.2 micrograms per liter are within acceptable limits for the EPA Method 8270M-SIM analyses. EPA Method 8270M-SIM is the analytical method recommended by DEQ in reconnaissance-level investigations to characterize for the presence of the 16 most commonly occurring PAH compounds.

Additionally, as stated above, it is our opinion that the PAH constituents that were detected in the soil and groundwater samples that were submitted for PAH analyses are not related to the cutting fluid release. The source of the PAHs is not known but may be related to fill materials used at the Site and surrounding area during initial development in the early 1960s.

Ms. Alicia C. Voss
Oregon Department of Environmental Quality
12 March 2004
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Statement 14: Recommendation(s) Bullet #7

Diesel and Oil-range hydrocarbons are present in the B-7 (8.0' bgs) soil sample, at concentrations very similar to those collected from borings B-8 and B-9, where significantly elevated levels of benzo(a)pyrene were found; however, no PAH analysis was performed for any of the B-7 samples.

Response:

The concentration of benzo(a)pyrene detected in the sample from borehole B-7 is not significantly elevated with respect to the RBCs (refer to the response to Recommendation Bullet #1). Based on the results of the analytical testing of the soil sample obtained from shallow borehole S-1, it was apparent that PAHs were not associated with the cutting fluid release. Therefore, analysis of all soil samples with hydrocarbon detections for PAHs did not appear warranted.

SUMMARY

The purpose of responding to specific statements in DEQ's SSR is to correct misleading or inaccurate information presented in the SSR. The above responses illustrate that further investigation of soil and groundwater at the Site, and the stormwater pathway and potential impacts to Willamette River sediments is not warranted.

If you have any questions regarding the Site or the above submittal, please do not hesitate to contact us at (503) 295-4911.

Very truly yours,

KENNEDY/JENKS CONSULTANTS

Chris R. Hyatt, RG
Geologist / Project Manager

Julia Fowler, P.E.
Senior Project Manager

Enclosure

cc: Mr. Ernie Nimister, Consolidated Metco, Inc.
Ms. Claudia Powers, Ater Wynne, LLP

Photographs



Photograph No. 1: Heat treating baskets.

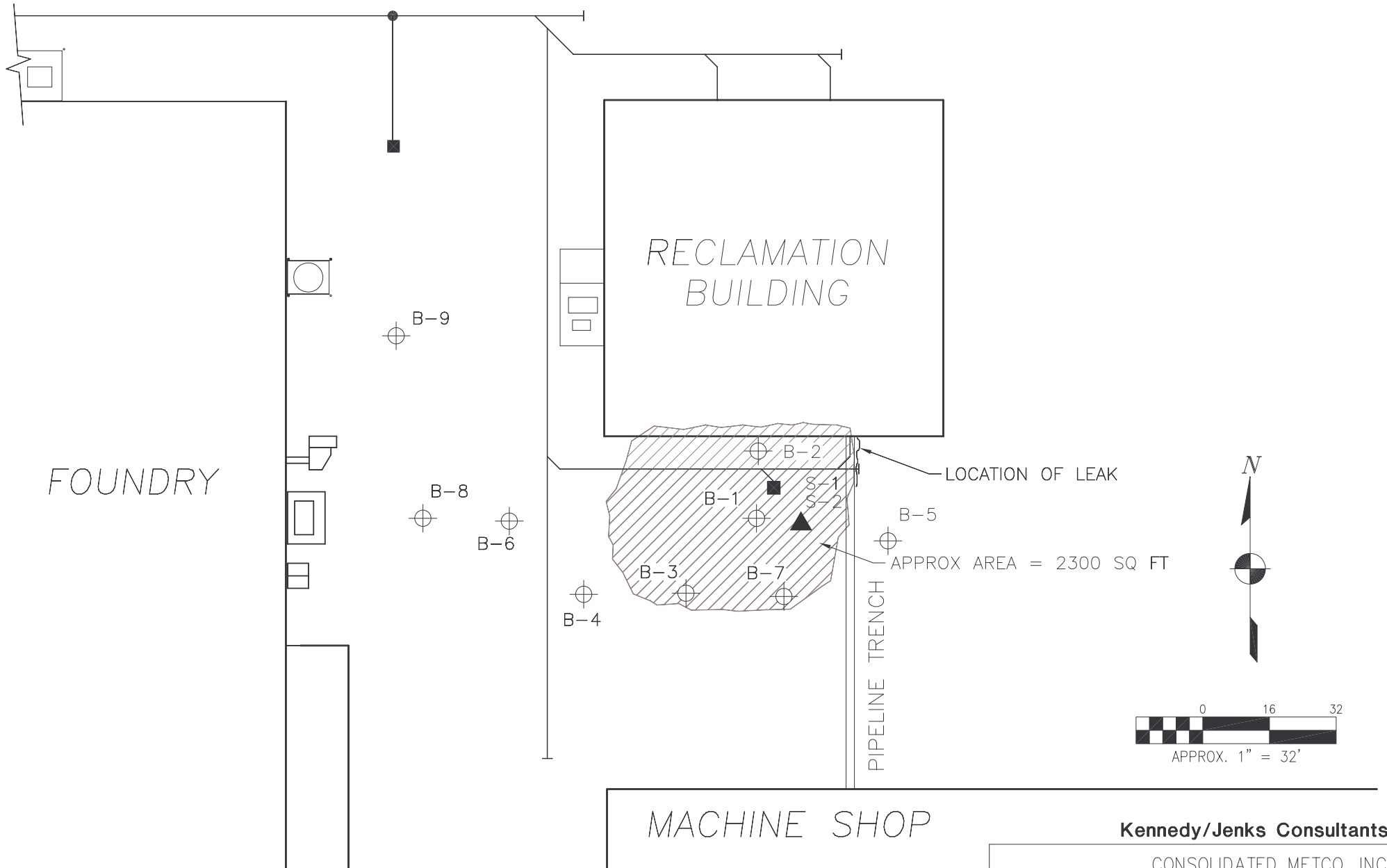


Photograph No. 2: View of reclaimed cutting fluid pipeline located between the reclamation building and machine shop.






Photograph 3: View of February 2001 release area showing reclaimed cutting fluid pipe (in lower right) and location of the stormwater catch basin.

Figure



LEGEND:

-  B-9 BORING LOCATION (21, 27, FEBRUARY 2001)
-  S-2 HAND DUG EXPLORATION SAMPLE LOCATION (2, FEBRUARY 2001)
-  CATCH BASIN

Kennedy/Jenks Consultants

CONSOLIDATED METCO, INC.
RIVERGATE FACILITY
PORTLAND, OREGON

SITE PLAN SHOWING IMPACTED AREA

K/J 016024.00/P1SK001

FIGURE 1

Waste Management Invoice - Hillsboro Landfill

DEQ Meeting 10-19-06

Today I attended a meeting at DEQ on the Rivergate site investigation status regarding two minor spill events that occurred in year 2000. Since 2004 the investigation was placed on the back burner as we were considered low priority. We are now on the front burner. The following bulleted items were discussion points of interest:

- The letter of agreement on the site investigation status needs to be reviewed regarding the Joint Source Control Strategy and Source Control Evaluation Report.
- DEQ agrees with CMI, consultant, and attorney that the soil and ground water investigation is a non-issue.
- The next step in the investigation process is the Portland Harbor (PH) Stormwater Evaluation.
- DEQ provided a condensed version of the PH Evaluation and instructions for developing catch basin sampling plans and summary report.